

## ABSTRACT OF THE DISCLOSURE

A system and method for rendering a polygon, such as a triangle. The method may comprise receiving geometry data (or vertex data) defining vertices of the polygon.

- 5 The method may compute initial vertex x,y values at end points proximate to each of the vertices of the polygon, and a slope value along each edge of the polygon. The computed slope may be a quantized slope value having a first number of bits of precision. The first number of bits of precision may produce inaccuracies for interpolated x,y values computed at the end points of an edge of the polygon. The method may then interpolate
- 10 x,y values along each respective edge of the polygon using the computed slope along the respective edge of the polygon. Finally the method may store final x,y values for each respective edge of the polygon. The final x,y values comprise the interpolated x,y values for non-end points of the respective edge, and the computed initial vertex x,y values for each of the end points of the respective edge. The operation of storing the computed
- 15 initial vertex x,y values for each of the end points of the respective edge, instead of using interpolated x,y values at the end points, operates to prevent inclusion of an extraneous pixel and/or exclusion of a pixel within the polygon.